

Key - For your eyes only!

The Moon & Seasons Test Review

Equinox -- Day on which the sun shines most direct on the equator

Northern Hemisphere -- The part of the Earth that is North of the equator

Southern Hemisphere -- The part of the Earth that is South of the equator

Solstice -- Day that the North Pole points toward or Away from the Sun

Spring Tides -- The sun, the moon and the Earth are in a line.

Neap Tides -- The sun and the moon form a right angle with the Earth.

Questions and answers from the study guide in completed in class.

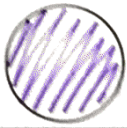
1. What is the motion of the Earth around the Sun Called? - revolution
2. The Earth rotates on its axis which takes about 24 hours.
3. What causes the seasons? - tilt of earth and revolution around the sun.
4. The date when the earth is most tilted toward the sun in the Northern Hemisphere is June 21
5. The area south of the equator is called the Southern hemisphere
6. The imaginary line that runs through the earth is its axis
7. The season, in the northern hemisphere, when the tilt is pointed away from the sun? Winter
8. The season, in the southern hemisphere, when the tilt is pointed away from the sun? - Winter
9. When does the northern hemisphere experience the fall equinox? - Sept. 21
10. What gives us night and day? - rotation on our axis
11. The earth completes one revolution around the sun in 365 days - 1 year
12. In what season does the northern hemisphere experience less day light hours? Winter
13. The earth's longest day of the year in the northern hemisphere is during the summer
14. What 2 seasons start with equal numbers of daylight and night hours in both hemispheres? -- Spring and fall
15. The changes of the moon's appearance from earth is known as phases of the moon.
16. Waning is when the moon is decreasing in its reflection of light.
17. The phase of moon in which 2/3 of the moon is lit and increasing -- waxing gibbous
18. The sun appears to travel from east to west in the sky
19. The same side of the moon is always facing the earth because rotation and revolution are equal.
20. A crescent moon appears when less than 1/2 of the moon is illuminated.
21. The phase of moon when no reflected light is visible from earth is called a new moon
22. What phase of moon occurs after a full moon? - Waning gibbous
23. Spring tides are: high-high tides and happen during Full & new moon phases.
Low-Low tides
24. Neap tides are: Low high tides + high low tides and happen during 1st Quarter & 3rd Quarter moon phases.
25. The moon does not create its own light... it reflects the Sun's rays.
26. Indirect light rays are weaker and spread out more.
27. Direct light rays are strong and hit the earth straight on.
28. What is the number angle of the earth's tilt? - 23.5°
29. What are the temperatures like on and around the equator? - Always Warm
30. Rotation of the earth takes: 24 hours
31. What is it called when half of the moon is lit and visible from earth? - quarter moons
32. What is it called when the moon is increasing in reflected light and showing 2/3 lit? - waxing gibbous
33. The moons rotation and revolution take 28 days
34. Why is the moon visible in the night sky? - sun reflects light off it. It reflects the sunlight.
35. The earth's orbit is ellipse or like the shape of an oval. the sunlight.
36. Everyday there are 2 high tides and 2 low tides.

NAME: _____

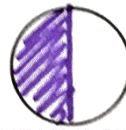
Date: _____

MOON PHASES

In the blank circle, draw the moon phase we would see if we were on Earth in the diagram and then write the name of that moon phase on the blank line



New.



1st. Quarter



Waxing Crescent



Waxing Gibbous

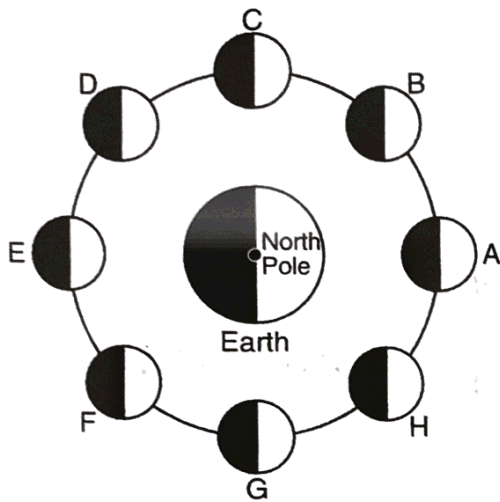


Full Moon



Waning Gibbous

Use the diagram below to fill in the name of the moon phases for the position indicated by the letter



(Not drawn to scale)

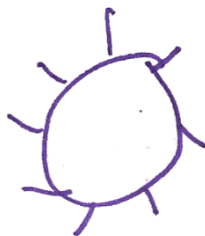


- A: New Moon
- B: Waxing Crescent
- C: 1st Quarter
- D: Waxing Gibbous
- E: Full Moon
- F: Waning Gibbous
- G: Last or 3rd Quarter
- H: Waning Crescent

In the space below, draw a diagram with the Sun on the right, so that if we were on Earth we would see a waning crescent moon.



In the space below, draw a diagram with the sun on the left, so that if we were on Earth we would see a waxing quarter moon.



THE LONG AND SHORT OF IT

Study Figure B. Answer the questions or fill in the blanks.

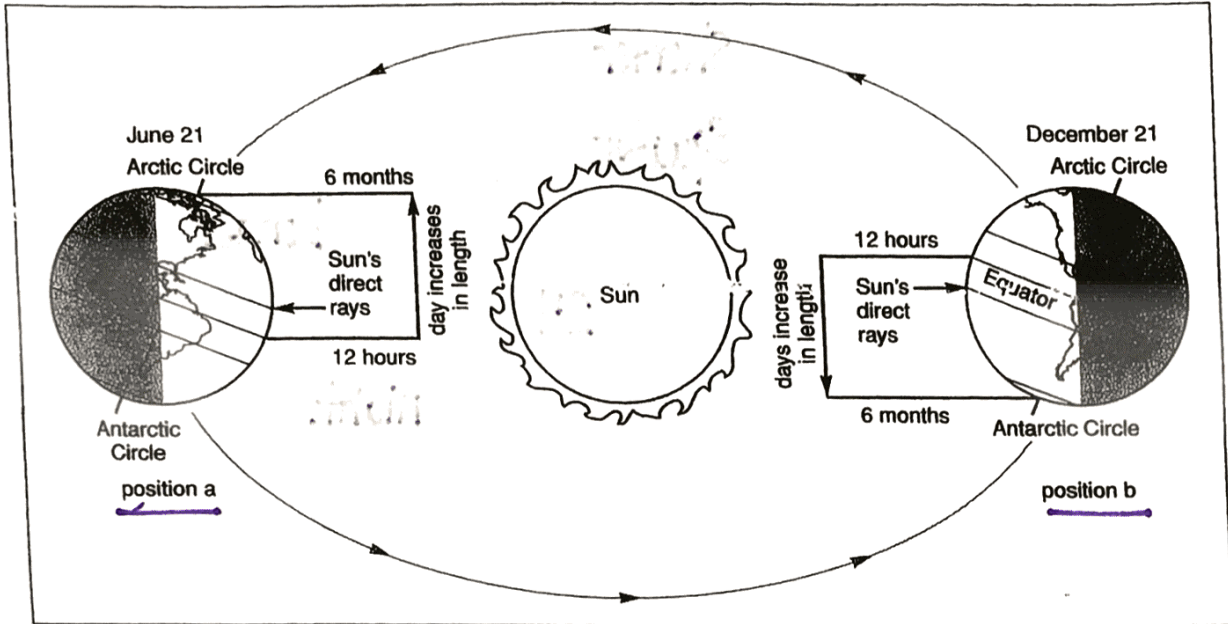


Figure B

Position a shows the Earth on June 21.

Position b shows the Earth six months later on December 21. It has now come halfway along its revolution around the sun.

1. Look at the Earth's axis on both dates. Has the angle of its tilt compared to the sun changed? Same angle - No change
2. Has the direction of the tilt compared to the sun changed? yes - one tilt toward one tilted away

JUNE 21

On June 21, the North Pole points directly toward the sun. This day in the Northern Hemisphere is the summer solstice [SOHL-stis]. On this day the north pole has 24 hours of sunlight.

1. On June 21, the Northern Hemisphere tilts toward the sun.
Northern, Southern
2. On June 21, the Southern Hemisphere tilts away from the sun.
Northern, Southern
3. On June 21, the Northern Hemisphere has more hours of sunlight.
Northern, Southern
4. On June 21, the Southern Hemisphere has fewer hours of sunlight.
Northern, Southern

5. On June 21, days are longer in the Northern Hemisphere.
Northern, Southern
6. If days in the Northern Hemisphere are longer, then days in the Southern Hemisphere are Shorter.
longer, shorter
7. On June 21, the Equator has 12 hours of day and 12 hours of night.
equator, Arctic circle, Antarctic circle
8. As you move farther north, the days become Longer.
longer, shorter
9. On June 21, there are 24 hours of daylight in the Arctic Circle.
zero, 12, 24
10. When it is day at the Arctic Circle, it is night at the Antarctic Circle.

DECEMBER 21

On December 21, the North Pole points away from the sun. This day in the Northern Hemisphere is the winter solstice. On this day, the North Pole has 24 hours of darkness.

1. On December 21, the Southern Hemisphere leans toward the sun.
Northern, Southern
2. On December 21, the Northern Hemisphere leans away from the sun.
Northern, Southern
3. On December 21, the Southern Hemisphere has more hours of sunlight.
Northern, Southern
4. On December 21, the Northern Hemisphere has fewer hours of sunlight.
Northern, Southern
5. On December 21, days are longer in the Southern Hemisphere.
Northern, Southern
6. If days in the Southern Hemisphere are longer, then days in the Northern Hemisphere are shorter.
longer, shorter
7. On December 21, the Equator has 12 hours of day and 12 hours of night.
equator, Arctic circle, Antarctic circle
8. The length of day and night does not seem to change at the equator.
does, does not
9. On December 21, there are zero hours of daylight in the Antarctic Circle.
zero, 12, 24
10. When it is day at the Antarctic Circle it is night at the Arctic Circle.
day, night

EQUINOXES

For most of the year, the number of hours of day and night in the Northern and Southern Hemispheres are unequal.

On just two days of the year, every place on Earth has an equal number of hours of day and night.

On March 21 and September 23, neither hemisphere leans toward the sun. On these days, every place on Earth has 12 hours of daylight and 12 hours of darkness.

March 21 and September 23 are called equinoxes [EE-kwuh-nahks-éz].

Figure C shows the Earth during one revolution around the sun. Study Figure C. Then answer the questions or fill in the blanks.

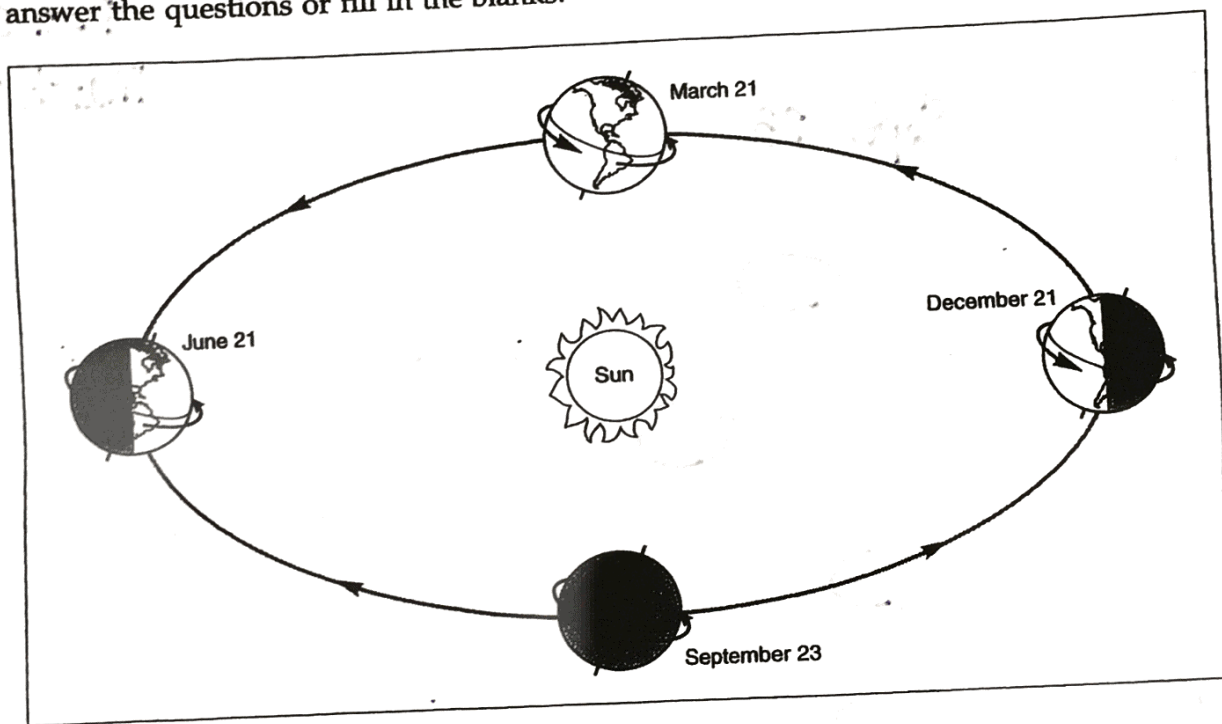


Figure C

1. The Earth rotates on its axis.
rotates, revolves
2. The Earth revolves around the sun.
rotates, revolves
3. One rotation makes one day.
day, year
4. One revolution makes one year.
day, year
5. Look at the Earth's axis on each date.
 - a) Has the angle changed? No
 - b) Has the axis changed the way it leans toward or away from the sun? yes

NAME THE DATES

1. The Northern Hemisphere leans toward the sun most on June 21.
2. The Northern Hemisphere leans away from the sun most on Dec. 21.
3. The Earth's axis does not lean toward nor away from the sun on March 21 and Sept. 23.
4. The longest day of the year in the Northern Hemisphere is June 21.
5. The shortest day of the year in the Northern Hemisphere is Dec. 21.
6. Day and night are equal in length everywhere on Earth on March 21 and Sept. 23.
7. In the Northern Hemisphere, between June 21 and September 23, days become longer shorter.
8. In the Northern Hemisphere, between September 23 and December 21, days become longer shorter.
9. In the Northern Hemisphere, between December 21 and March 21, days become longer shorter.
10. In the Northern Hemisphere, between March 21 and June 21, days become longer shorter.
11. Differences in the number of hours of day and night happen slowly suddenly.
12. In which hemisphere do you live? Northern
13. What is today's date? Feb.
14. On this date, where you live, there will be more hours of day night.
15. Tomorrow, day will last a few minutes longer shorter and night will last a few minutes longer shorter.